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LOYOLA UNIVERSITY CHICAGO

RISK AND RESILIENCE FACTORS AMONG LOW-INCOME LATINO
ADOLESCENTS: THE IMPACT ON DAILY RATINGS OF MOOD

A THESIS SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
MASTER OF ARTS

PROGRAM IN CLINICAL PSYCHOLOGY

BY
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CHICAGO, ILLINOIS

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CHAPTER ONE

INTRODUCTION

Currently, in the United States, the Latino/Hispanic population comprises about 16.9% of the total population (U.S. Census Bureau, 2014) and between 2000 and 2008, Latino youth under the age of 14 increased by about 3.2 million (Moeller, 2010). Given the continued growth of this population, it is crucial to explore the risk and resilience factors that characterize low-income Latino youth. When compared to their non-Hispanic counterparts, Latino youth have been identified to be more at risk for elevated negative mood (Centers for Disease Control and Prevention, 2012) as well as depression and anxiety (McLaughlin, Hilt, & Nolen-Hoeksema, 2007). The literature also points to an established link between negative mood and depression, anxiety, and low self-esteem (e.g. Lonigan, Hooe, David, & Kistner, 1999; Phillips, Lonigan, Driscoll, & Hooe, 2002; Schneiders, Nicolson, Berkhof, Feron, deVries, & van Os, 2007). Hence, investigating the multifaceted family, ethnicity, and cultural constructs of risk and resilience among a low-income Latino adolescent's life may elucidate its impact on daily mood.

Two salient and interrelated risk factors common in the daily experiences of low-income Latino youth are economic stress and family stress. Recent statistics have revealed that an overwhelming 61% of Latino adolescents live in low-income families (Addy, Engelhardt, & Skinner, 2013) and economic stress has been linked to internalizing outcomes and depressed mood among low-income ethnic minority youth

(Evans & Kim, 2013; Hammack, Robinson, Crawford, & Li, 2004; Santiago, Wolff, & Wadsworth, 2009; Umaña-Taylor, Updegraff, & Gonzales-Backen, 2011; Wadsworth, Raviv, Reinhard, Wolff, Santiago, & Einhorn, 2008a). Furthermore, family stress, broadly defined as family change, moves, transitions, and conflict, has been linked to internalizing symptoms and depressed mood among Latino youth (Chan, Kelly, & Toumbourou, 2013; Sigfusdottir & Silver, 2009; Smokowski, Rose, & Bacallao, 2010; Unger, Brown, Tressell, & McLeod, 2000; Vargas, Roosa, Knight, & O'Donnell, 2013; Zeiders, Roosa, & Tein, 2011). Given the detrimental effects of economic stress and family stress, it is important to examine the resilience factors that may protect low-income Latino youth from maladjustment.

Fortunately, the stress affecting these youth may be buffered by familism and ethnic identity, two cultural resilience factors relevant to Latino youth. Familism is a salient cultural value in the Latino culture and can be characterized as a strong attachment and identification to one's family (Sabogal, Marín, & Otero-Sabogal, 1987). Familism has been associated with internalizing outcomes, including lower endorsement of depressive symptoms (Smokowski et. al., 2010; Stein, Gonzalez, Cupito, Kiang, & Supple, 2013; Zeiders et. al., 2011) and greater self-esteem (Piña-Watson, Ojeda, Castellon, & Dornhecker, 2013; Smokowski et. al., 2010). Additionally, familism may serve as a protective factor against economic stress and family stress and ultimately, impact mental health in a positive trajectory (Conger, Ge, Elder, Lorenz, & Simons, 1994; Kuhlberg, Peña, & Zayas, 2010; Rodriguez, Mira, Paez, & Myers, 2007; Taylor, Larsen-Rife, Conger, & Widaman, 2012; Zeiders et. al., 2011). Furthermore, ethnic

identity, or a sense of self-concept within a specific context (Phinney & Ong, 2007; Torres & Ong, 2010), has been related to higher levels of self-esteem and lower levels of depression, anxiety, and withdrawn symptoms among Latino youth (Garcia-Reid, Peterson, Reid, & Peterson, 2013; Piña-Watson et. al., 2013; Rivas-Drake, Syed, Umaña-Taylor, Markstrom, French, Schwartz, Lee, & Ethnic and Racial Identity in the 21st Century Study Group, 2014; Rogers-Sirin & Gupta, 2012; Umaña-Taylor, Gonzales-Backen, & Guimond, 2009b; Umaña-Taylor & Updegraff, 2007). Finally, like familism, ethnic identity may serve as a protective factor against economic and family stress (Stein, Kiang, Supple & Gonzalez, 2014; Supple, Ghazarian, Frabutt, Plunkett, & Sands, 2006; Williams, Aiyer, Durkee, & Tolan, 2013).

The present study investigates the impact of these risk and resilience factors on daily ratings of mood among low-income Latino adolescents using daily diary methodology. The study first examines the impact of economic stress and family stress on low-income Latino adolescents' daily mood. Next, this research examines the impact of familism and ethnic identity as potential protective factors in the context of daily mood. Finally, using hierarchical linear modeling, the influence of economic stress, family stress, familism, and ethnic identity are evaluated together in a comprehensive model in order to determine the relationship to daily mood ratings among this sample. More specifically, the cultural values of familism and ethnic identity are posited to serve as buffers in protecting these youth from the harmful effects of economic stress and family stress.

CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

Low-Income Latino Adolescents: A Model of Risk and Resilience

Conceptualizing the life experiences of Latino youth through a cultural-ecological-transactional perspective has been deemed essential in understanding how various contexts such as family, ethnicity, and culture shape development and overall well-being (Gonzales, Germán, & Fabrett, 2012; Kuperminc, Wilkins, Roche, & Alvarez-Jimenez, 2009). There are multiple risks present in the daily lives of Latino youth including family stress and family/community poverty (Figure 1). Such risk factors are defined as, “enduring conditions that persist over time, and transient events, whose influence is likely to vary with the developmental period in which they occur” (Kuperminc et. al., 2009, p.217). On the other end of the spectrum, resilience has been identified in the literature as, “a dynamic and multidimensional process through which individuals experience positive outcomes despite exposure to significant adversity” (Kuperminc et. al., 2009, p. 214). Several cultural resources such as familism and ethnic identity have been touted in past research to be associated with positive psychological outcomes (Gonzales, et. al., 2012). Exploring the challenges Latino youth face in everyday life, as well as the factors that may shield them from maladaptive outcomes, allows for the development and dissemination of prevention and intervention efforts that target clear risk factors and build on existing strengths among this community.

Furthermore, given the unique and multifaceted risk and resilience factors Latino adolescents face, the current study examines both the direct and interactive effects of economic stress, family stress, familism, and ethnic identity on low-income Latino adolescents' daily mood.

Figure 1. Cultural-Ecological-Transactional Perspective



Mood among Latino Adolescents

According to the Centers for Disease Control and Prevention (2012), about 32.6% of Latino adolescents endorsed sad or hopeless mood almost every day for two weeks or more and these rates were elevated compared to White and Black youth. Furthermore, a study investigating racial and ethnic differences in internalizing symptomatology found that Latina female adolescents endorsed higher depression and anxiety when compared to White and Black youth (McLaughlin et. al., 2007). Hence, it is evident that Latino adolescents experience higher rates of negative mood when compared to youth of different backgrounds. Furthermore, several studies reveal a clear link between positive

and negative affect and the development of depression and anxiety among youth (Lonigan et. al., 1999; Lonigan, Phillips, & Hooe, 2003; Phillips et. al., 2002). For example, studies have identified that a two-factor structure of affect (positive mood and negative mood) is a valid way to gauge symptoms of anxiety and depression (Lonigan et. al., 1999; Phillips et. al., 2002) and hence, mood and internalizing symptoms appear to be intertwined in the literature. Additionally, the association between depressive mood and self-esteem has been explored in the literature. A direct link from self-esteem to depressed mood (Plunkett, Henry, Robinson, Behnke, & Falcon, 2007) and the association between state self-esteem and negative mood in school environments has been found among adolescents (Reynolds & Repetti, 2008). Thus, mood is clearly linked to depression, anxiety, and self-esteem.

Daily process designs have also been used in studies to assess mood among adolescents and adults (e.g. Genet & Siemer, 2012; Peeters, Nicolson, Berkhof, Delespaul, & deVries, 2003, White & Shih, 2012) and researchers have stated that moods should be conceptualized and studied within the scope of daily life (Schneiders et. al., 2007). Furthermore, there is a link between daily mood and mental health symptoms, such as depression, among adolescents and an association between daily trait self-esteem and daily mood among adults (Nezlek & Plesko, 2001; Schneiders et. al., 2007; White & Shih, 2012). One study investigated the impact of daily mood and found that adolescents have higher positive affect and lower negative affect with family than when alone and lower positive affect (anxiety) at school when compared to home (Schneiders et. al., 2007). Hence, this research suggests the importance of investigating daily contexts and

corresponding mood states among a youth sample. However, little research has looked at how certain contexts, such as economic stress and family stress, and certain resilience factors, such as familism and ethnic identity, contribute to daily mood. Investigating the impact of such risk and resilience factors on daily mood among low-income Latino adolescents can inform prevention programming designed to promote better mood and prevent the development of depression and anxiety.

Economic Stress

Poverty has been defined as low socioeconomic status determined by a federal income cut-off (Barajas, Philipsen, & Brooks-Gunn, 2008) and recent statistics revealed that 61% of Latino youth reside in a low-income household (Addy et. al., 2013). A breadth of literature has previously established the association between poverty and negative mental health outcomes among youth (Wadsworth, Wolff, Santiago, & Moran, 2008b). For children residing in poverty, internalizing disorders have been linked to their current state of poverty (Brooks-Gunn & Duncan, 1997). Indeed, among children, poverty has been shown to be directly associated with depressed mood (Hammack et. al., 2004), depressive symptomatology (Lempers, Clark-Lempers, & Simons, 1989; Butler, 2014) and persistent, as opposed to intermittent, poverty appears to predict low self-esteem (Bolger, Patterson, Thompson, & Kupersmidt, 1995). Poverty also exerts stress across multiple contexts including the home and school environment and can subsequently impede the way youth adaptively cope with everyday stresses (Evans & Kim, 2013).

Although poverty directly impacts the lives of low-income youth (e.g. Brooks-Gunn & Duncan, 1997; Wadsworth et. al., 2008b), the stress resulting from living in poverty has been consistently implicated in the association between poverty and adverse outcomes (e.g. Wadsworth et. al., 2008b). Economic stress has been defined as the day-to-day stress associated with residing in poverty and from a youth's perspective includes stresses such as parents not having enough money to pay the bills, not being able to afford necessities (e.g., school supplies, clothes, food) and extras (e.g., participating in fun family activities), and taking on extra duties at home due to parental work hours (Gonzales, Gunnoe, Jackson, & Samaniego, 1995; Santiago et. al., 2009; Wadsworth & Compas, 2002). The literature identifies that low-income children experience more frequent and intense daily stress and hassles (Evans, 2004) and children residing in poverty may be more likely to be exposed to an accumulation of stressors, which, in turn, can be associated with negative psychological well-being such as depression and anxiety (Evans & Kim, 2013). In a study investigating the impact of poverty on Caucasian, African-American, and Hispanic youth, poverty-related stress was found to be associated with anxiety, depression, withdrawn symptoms, and somatic symptoms and it was posited that these stresses may cause youth to feel uncertain and hopeless about their economic situation (Wadsworth et. al., 2008a). Additionally, economic stress has been linked to higher depressive symptoms among Latina adolescents (Umaña-Taylor et. al., 2011). Therefore, exploring the daily stresses that accompany poverty can be especially beneficial in explicating how poverty impacts the mental health of low-income, ethnic minority youth.

Hence, it is clear that poverty and economic stress have a detrimental impact upon the developing youth. Although there is an established link between economic stress and internalizing symptoms (Umaña-Taylor et. al., 2011; Wadsworth et. al., 2008a), daily mood has not explicitly been studied among this population. Research has suggested that economic stress can be taxing and distressing and subsequently, contribute to depressed mood among low-income children and adolescents (Santiago et. al, 2009). Hammack and colleagues (2004) showed that poverty was associated with increased depressed mood among urban, African-American adolescents although economic stress and mood were not explored in this study. Nonetheless, in a study by Brown & Lynn (2010), higher reported economic stress was associated with more negative mood among low-income, ethnic minority parents. Therefore, the day-to-day stress associated with living in poverty and its impact on daily negative mood may also be applicable among low-income Latino adolescents.

Family Stress

Poverty also takes a toll on the family, resulting in increased family stress (Conger et al., 1994). Given that low-income and ethnic minority youth may be impacted by stress within the family system (Parke, Coltrane, Duffy, Buriel, Dennis, Powers, French, & Widaman, 2004), an in-depth examination of everyday family stress may prove helpful in illuminating how disruptions in the family unit may negatively impact adolescents. In previous research, family stress has been conceptualized as stressful events occurring in the family domain such as family change, moves, transitions, and conflict among family members (Hammack et. al., 2004; Santiago & Wadsworth, 2011;

Zeiders et. al., 2011). Among low-income and inner-city adolescents, family stress was found to be significantly associated with depressed mood and additionally, mediated the relationship between poverty and depressed mood (Hammack et. al., 2004). Further, for Latino adolescents in particular, these negative effects may be especially harmful given the salience of family in Latino culture (Gonzales et. al., 2012).

There is a dearth of literature on family change and transition (instability) in non-European adolescents, despite this being a key contributor to family stress. Therefore, Vargas and colleagues (2013) aimed to investigate this construct as a risk factor, which could potentially hinder Mexican American adolescents' development and mental health (Vargas et. al., 2013). Family instability was associated with internalizing symptoms and this relationship was also mediated by parent-adolescent conflict (Vargas et. al., 2013). Hence, family change and transition threatened the family unit by heightening conflict, which led to negative outcomes over time (Vargas et. al., 2013).

Family conflict, another component of family stress, may also play a key role in impeding the healthy development of youth. For families residing in poverty, family conflict has been posited to play a role in the relationship between economic stress and internalizing symptomatology (Conger et. al., 1994; Wadsworth & Compas, 2002). Furthermore, in past research, parent-child conflict emerged as a salient predictor of internalizing symptoms among Latino youth (Zeiders et. al., 2011). Additionally, Latino adolescents who reported a high level of parental conflict experienced higher internalizing symptoms and lower self-esteem and this maladjustment was pervasive over time (Smokowski et. al., 2010). Therefore, the literature shows a well-established link

between family conflict and internalizing symptoms. Although research has not yet investigated the association of family conflict with daily mood, several studies have pointed to the association between family conflict and depressed mood among adolescents (Chan et. al., 2013; Sigfusdottir & Silver, 2009; Unger et. al., 2000).

Additionally, interparental conflict has been found to be significantly related to depressed mood over time (Unger et. al., 2000). Research has proposed that conflict in the family system may negatively impact a youth by disrupting the family's capacity to provide their child with a secure and close-knit environment (Unger et. al., 2000). Ultimately, family conflict can threaten the quality of family functioning and lead to negative outcomes, including depressed mood, among low-income youth.

Latino youth are exposed to chronic, cumulative, and daily stressors (Gonzales et. al., 2012), and daily family stress (e.g., family conflict, family moves/transitions) appears to be a common and significant stressor within this context. In a study carried out among urban and ethnic minority youth, family stress, more specifically, poor family structure and cohesion, significantly predicted depression and anxiety in youth, such that it mediated the impact of daily hassles on internalizing symptoms (Sheidow, Henry, Tolan, & Strachan, 2013). Summarizing the previous research, family stress appears to play a key role in the development of mental health problems, such as internalizing symptomatology and depressed mood, among low-income and ethnic minority youth. Given that negative day-to-day mood may precede the development of depression and anxiety, there is a need to more thoroughly examine the link between family stress and daily mood.

Familism

In the midst of economic stress and family stress, a breadth of literature has suggested that the family unit can serve as an influential protective factor (e.g. Kuperminc et. al., 2009; Stein, et. al., 2013). Familism has been identified as one of the most salient Latino cultural values (Reyes & Elias, 2011). By definition, familism can be characterized as a strong identification and attachment to family (both extended and immediate members) as well as a sense of loyalty, reciprocity, and solidarity among the family unit (Sabogal et. al., 1987). Sabogal & colleagues (1987) identified familial obligations, perceived support, and family as referents (i.e. that an individual represents the whole family and therefore, should abide by their expectations) as components of familism. Furthermore, family values and ties, which result from embodying familism, have been deemed significant components of the Latino family system (Gonzales et. al., 2012). The impact of familism cuts across many domains of child adjustment and development including internalizing outcomes (Reyes & Elias, 2011) and may also have a beneficial impact upon mood.

Among Latino adolescents, previous research has linked familism with fewer depressive symptoms both in a cross-sectional design (Stein et. al., 2013) as well as longitudinal designs (Zeiders, Updegraff, Umaña-Taylor, Wheeler, Perez-Brena, & Rodríguez, 2013). Additionally, it has been found to predict less endorsement of internalizing symptoms and higher self-esteem among Latino youth (Smokowski et. al., 2010). Furthermore, familism has a beneficial impact upon the self-esteem of Mexican American adolescents (Piña-Watson et. al., 2013). Nevertheless, several studies have

suggested that familism can attract Latino youth to delinquent groups because these groups may serve as a substitute family for youth experiencing family problems (Reyes & Elias, 2011). Additionally, among emerging adults, a higher level of familism may lead to greater psychological distress due to the fact that it exacerbates parent-child discord threat appraisals and subsequently, disrupts the value of family harmony (Hernández, Ramírez García, & Flynn, 2010). Despite these exceptions, overall research points to familism as a resilience factor which protects against internalizing symptoms and may lead to better self-esteem and hence, may also have an impact on daily mood. Therefore, examining how this resilience factor interacts within contexts such as economic stress and family stress may expound how familism affects daily mood among Latino adolescents.

The interplay between economic stress and the cultural value of familism has not been widely explored in the context of internalizing outcomes. However, one study investigated psychosocial functioning (specifically, depressive symptoms and risky behaviors) among adolescent Latina mothers facing economic and discrimination stress (Umaña-Taylor, et. al., 2011). Although familism was related to better functioning at low levels of discrimination, it did not play a role in the association between economic difficulties and risky behaviors among this population (Umaña-Taylor et. al., 2011). Nevertheless, previous research suggests the family unit is a key factor in explaining the effect of economic stress on child adjustment (Conger et. al., 1994). Given that economic stress can disrupt the family unit (Parke et. al., 2004), it may be that high levels of family unity, dependability and emotional closeness (i.e., familism) protect against this

disruption (Zeiders et. al., 2013). Familism is linked to fewer internalizing symptoms (e.g. Smokowski et. al., 2010), though research is needed to directly examine whether it serves as a protective factor in the context of economic stress

Familism may also protect youth from the negative impact of family stress. Family stress and the concept of familism seem to be intertwined in the literature. For example, familism has been linked to lower levels of interpersonal conflict among Mexican-origin families (Taylor et. al., 2012), a protective factor against parent-adolescent conflict, and associated with a greater sense of self-esteem (Kuhlberg et. al., 2010). Among Mexican-origin adults, family support was linked to psychological well-being, a measure which tapped into several constructs including depressed mood (Rodriguez et. al., 2007) and among Latina youth, a sense of high cohesion and low conflict within the family was protective against suicidal behavior (Peña, Kuhlberg, Zayas, Baumann, Gulbas, Hausmann, Stabile, & Noelle, 2011). Hence, by promoting values such as cohesion and loyalty, familism may shield youth from the negative effects of family stress.

Although familism is linked to fewer internalizing symptoms, there is a dearth of literature on how this resilience factor impacts mood on a daily basis. Further, little is understood about how familism may impact daily mood in the context of economic stress and family stress. Given the salience of the family unit across economic stress, family stress, and familism (e.g. Conger et. al., 1994; Hammack et. al., 2004; Kuperminc et. al., 2009), an investigation of how these risk factors operate among low-income Latino

adolescents' daily lives, specifically looking at daily mood, may inform how familism is protective among certain contexts.

Ethnic Identity

Along with the protective effects of familism, ethnic identity may also serve as a resilience factor among Latino youth (Gonzales et. al., 2012). According to a definition by Bernal and colleagues (1990), ethnic identity is, “a construct or set of self-ideas about one’s own ethnic group membership...the personal ownership of ethnic group membership and its correlated knowledge, understanding, values, behaviors, and feelings that are direct implications of that ownership” (Bernal, Knight, Ocampo, Garza, & Cota, 1993, p. 33). Ethnic identity is comprised of two components and the first consists of affirmation, belonging, and commitment (referred to as commitment in the present study) which is defined as a sense of pride and positive feelings about one’s ethnic group (Phinney 1992; Phinney & Ong, 2007; Roberts, Phinney, Masse, Chen, Roberts, Romero, 1999.) The other component of ethnic identity is exploration or learning about and becoming involved in one’s ethnic group (Phinney 1992; Phinney, 2007; Roberts et. al., 1999). These components of ethnic identity may impact mental health in different ways (Romero & Roberts, 2003) and progress via different developmental trajectories (Schwartz, Syed, Yip, Knight, Umaña-Taylor, Rivas-Drake, & Lee, 2014). Therefore, to fully understand the overall impact of ethnic identity on mental health, both components must be partitioned and thoroughly examined (e.g. Schwartz et. al., 2014; Supple et. al., 2006; Umaña-Taylor et. al., 2009b).

A meta-analysis conducted in 2010 revealed that there was a moderate effect size between ethnic identity and personal well-being among people of color (Smith & Silva, 2011). Furthermore, although ethnic identity seemed to be consistently related to self-esteem and well-being in the literature, it was not always associated to mental health outcomes, such as depression and anxiety (Smith & Silva, 2011). Nevertheless, another meta-analysis involving both racial and ethnic identity showed that racial/ethnic identity was negatively associated with depressive symptoms and internalizing problems (Rivas-Drake et. al., 2014). Among Latino adolescents, ethnic identity also predicted better self-esteem (Piña-Watson et. al., 2013) and lower levels of withdrawn and depressive symptoms (Rogers-Sirin & Gupta, 2012). Additionally, research has shown that it can have an indirect effect on depression and anxiety through ethnic identity's association with higher self-esteem (Garcia-Reid et. al., 2013).

Examining the subcomponents of ethnic identity among Latino adolescents have yielded that both ethnic identity commitment and exploration predict higher levels of self-esteem (Umaña-Taylor et. al., 2009b; Umaña-Taylor & Updegraff, 2007). However, context appears to play a role in how the subcomponents of ethnic identity affect mental health (e.g. Arbona & Jimenez; Greene, Way, & Pahl, 2006; Torres, Yznaga, & Moore, 2011; Williams et. al., 2013). Commitment has been associated with positive psychosocial outcomes, such as higher self-esteem, among Latino youth (Rivas-Drake et. al., 2014) and a study utilizing daily diary methodology found that this component also buffered the intensity and recovery of depression among Latino adults facing daily discrimination (Torres & Ong, 2010). On the other hand, exploration was found to

worsen the effect of daily discrimination on depression (Torres & Ong, 2010). Hence, examining the components of ethnic identity, specifically commitment and exploration, may be beneficial.

Two studies tap into the constructs of ethnic identity and economic stress among ethnic minority adolescents (Stein et. al., 2014; Umaña-Taylor et. al., 2011). Among Latina adolescent mothers, ethnic identity commitment among this population did not buffer the effects of economic stress on depressive symptomatology (Umaña-Taylor et. al., 2011). However, in a daily diary study among Asian American adolescents, adolescents who endorsed a higher level of ethnic identity commitment endorsed higher self-esteem, while exploration in the face of high economic stress predicted lower self-esteem (Stein et. al., 2014). Conversely, commitment predicted a greater endorsement of depressive symptomatology and exploration predicted higher self-esteem when assessed at a later timepoint (Stein et. al., 2014). Though the literature is somewhat mixed dependent on context, overall, ethnic identity appears to be protective (e.g. Rogers-Sirin & Gupta, 2012). Further examination of how the subcomponents of ethnic identity operate under the detrimental effects of day-to-day economic stress may clarify its impact on low-income Latino adolescents in this context.

The link between family stress and ethnic identity has been relatively understudied, especially in the context of internalizing outcomes. A study by Supple and colleagues (2006) found that lower levels of parental involvement and high levels of harsh parenting were negatively associated with ethnic identity commitment among Latino adolescents. Among urban, ethnic minority male adolescents, both commitment

and exploration were deemed protective factors for youth experiencing family stress, conceptualized by family instability and economic difficulties (Williams et. al., 2013). More specifically, ethnic identity commitment played a protective role in the association between family stress and criminal offending and both commitment and exploration buffered the impact of family stress and delinquency (Williams et. al., 2013). Although there appears to be no studies examining family stress and ethnic identity as predictors of Latino adolescents' daily mood, ethnic identity appears to buffer the impact of family stress on the overall adjustment of ethnic minority youth.

The literature on ethnic identity is still emerging, though research suggests that ethnic identity is multifaceted. Its components of commitment and exploration need to be examined separately as these dimensions may function differently based on the context (Rivas-Drake et. al., 2014) and measure used (Syed, Walker, Lee, Umaña-Taylor, Zambonanga, Schwartz, Armenta, & Huynh, 2013). Ethnic identity has been deemed a protective factor against internalizing outcomes (Rogers-Sirin & Gupta, 2012) and can also promote positive self-esteem (Piña-Watson et. al., 2013). However, daily mood, despite its association with internalizing symptomatology, has not been explored in ethnic identity research. The current study examines the impact of both the commitment and exploration components of ethnic identity and their interaction with economic stress and family stress on low-income Latino adolescents' daily mood.

Limitations of Previous Research

The current study employs daily diary methodology in order to examine the impact that risk (daily economic stress and daily family stress) and resilience factors

(familism and ethnic identity) have on daily ratings of mood among low-income Latino adolescents. Previous researchers have often studied these constructs of risk and resilience among low-income and Latino youth and their impact upon mental health separately (e.g. Evans & Kim, 2013; Rogers-Sirin & Gupta, 2012; Smokowski et. al., 2010; Zeiders et. al., 2011). However, this research aims to encompass the study of both low-income youth and Latino adolescents and investigate these variables in the lives of low-income Latino adolescents residing in an urban area. Moreover, although the direct link between economic stress, family stress, familism, ethnic identity and mental health has been established, the interplay among these variables has been less studied among researchers. Therefore, given that Latino youths' life experiences can be framed using the cultural-ecological-transactional approach (Gonzales et. al., 2012), the study aims to expand knowledge on how these factors interact under various contexts.

Furthermore, very few studies have examined the day-to-day life experience of ethnic minority adolescents and adults with respect to risk and resilience factors (Stein et. al., 2014; Torres & Ong, 2010). A majority of the research conducted among low-income and Latino adolescents utilize cross-sectional (e.g. Wadsworth et. al., 2008a) or longitudinal designs (e.g. Smokowski et. al., 2010), and therefore, may not be able to accurately capture the day-to-day stressors among this population. Moreover, previous studies investigating these specific constructs have not thoroughly looked at mood as an outcome despite the association between mood and internalizing outcomes and self-esteem (e.g. Nezlek & Plesko, 2001; Schneiders et. al., 2007; White & Shih, 2012). Hence, by capturing daily economic and family stress and its relationship with familism

and ethnic identity, this research reveals how these risk and resilience experiences impact the daily mood of low-income Latino adolescents.

Specific Aims and Hypotheses of the Present Study

Specific aim 1: To examine the impact of economic stress and family stress (as conceptualized by family trouble/change and family conflict) as a contributing factor to low-income Latino adolescents' ratings of daily mood.

Hypothesis 1a: Economic stress will have a detrimental impact on daily mood, such that higher economic stress will be associated with worse mood.

Hypothesis 1b: Family stress will have a negative impact on daily mood, such that higher family stress will be associated with worse mood.

Specific aim 2: To examine the impact of familism and ethnic identity (more specifically, the commitment and exploration components) as positively impacting participants' daily mood.

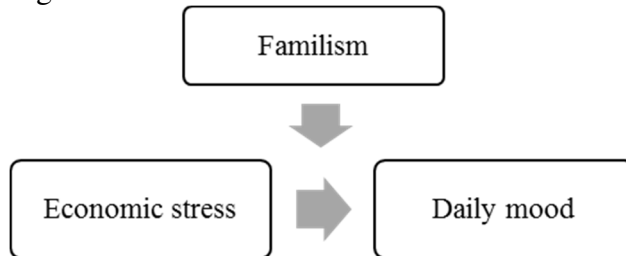
Hypothesis 2a: Familism will have a beneficial impact on daily mood, such that higher ratings of familism will predict better mood.

Hypothesis 2b: Both the commitment and exploration components of ethnic identity will have a beneficial impact on daily mood, such that higher endorsement of these facets will predict better mood.

Specific aim 3: To evaluate whether familism and the commitment and exploration subscales of ethnic identity buffer the impact of economic stress and family stress on daily ratings of mood among this sample.

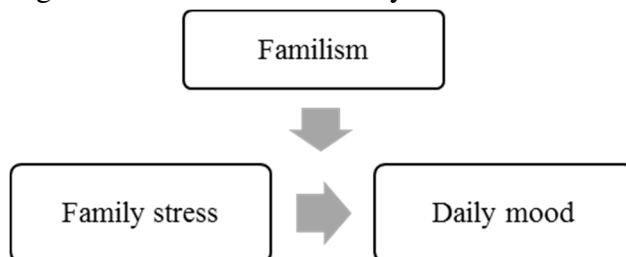
Hypothesis 3a: There will be a significant interaction of economic stress and familism, such that youth with high economic stress and high familism will have better mood and youth with high economic stress and low familism will have worse mood.

Figure 2. Interaction of Economic Stress and Familism



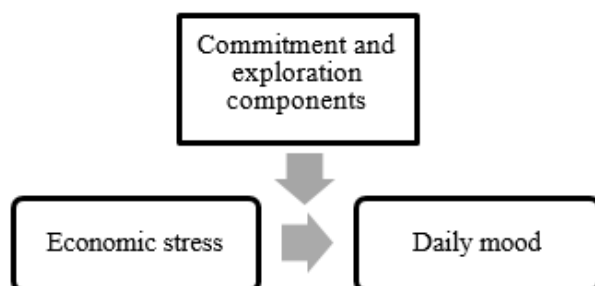
Hypothesis 3b: There will be a significant interaction of family stress and familism, such that youth with high family stress and high familism will have better mood outcomes than youth who endorse high family stress and low familism.

Figure 3. Interaction of Family Stress and Familism



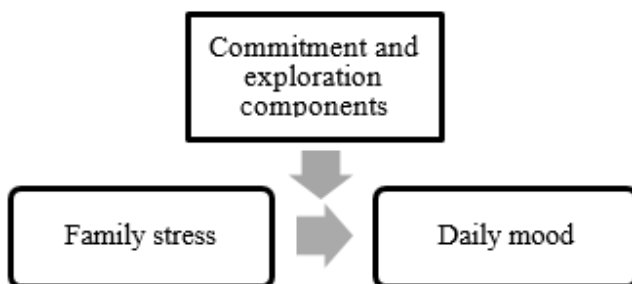
Hypothesis 3c: There will be a significant interaction of economic stress and the commitment and exploration components of ethnic identity, such that at high levels of economic stress, high commitment and exploration will lead to better mood outcomes. Youth reporting high levels of economic stress and low commitment and exploration will endorse worse mood.

Figure 4. Interaction of Economic Stress and Ethnic Identity Commitment and Exploration



Hypothesis 3d: There will be a significant interaction of family stress and the commitment and exploration components of ethnic identity, such that at high levels of family stress, high commitment and exploration will lead to better mood outcomes. Youth reporting high levels of family stress and low commitment and exploration will endorse worse mood.

Figure 5. Interaction of Family Stress and Ethnic Identity Commitment and Exploration



CHAPTER THREE

RESEARCH METHODS

This research was approved and conducted in compliance with the Loyola University Chicago's Institutional Review Board and the school district's research review committee.

Participants

The project included participants recruited from a local parochial middle school, which serves a low-income Latino population in a large Midwestern city. The participating school's 7th and 8th graders were given a presentation by research assistants who explained the study and invited all 68 students to participate in the study. Out of the 68 students, 58 students (mean age = 13.31, 47% female) comprised the final sample—five students did not obtain parental consent and five did not complete the baseline assessments. School records indicated that 93% of their 7th and 8th grade students are eligible to receive free or reduced lunch. By comparison, during the 2012-2013 school year in the city's public school system, 87.4% 7th graders and 87.1% 8th graders were eligible to receive free or reduced lunch (185% of the federal poverty line; Chicago Public Schools, 2015). Furthermore, 95.7% of students at an elementary school in the same community area were eligible for free or reduced lunch (Chicago Public Schools, 2015). Thus, this parochial school appeared to be serving a similar population as the public school in terms of income levels.

Participants identified as Latino (95%) or mixed race/ethnicity (e.g. Latino and Caucasian; 5%). Additionally, 95% of the students were born in the United States and 55% of their mothers and 61% of their fathers were born outside of the United States. Finally, 47% of the participants identified both their parents as immigrants, 22% of participants had one immigrant parent, and 29% of participants' parents were both U.S.-born. The majority of students (41; 70%) lived with both their mother and father (or a mother and father figure), 16 (28%) lived with just their mother (or mother figure), and one (2%) lived with just their father (or father figure). Participants reported that 57% of mothers and 69% of fathers were working full time, 17% of mothers and 17% of fathers were working part time, and 24% of mothers and 10% of fathers were not currently working. In terms of educational attainment for the participants' mothers, 20 (35%) did not finish high school, 20 (35%) graduated high school or obtained a GED, one (2%) obtained a training certificate, nine (16%) pursued some college, but did not earn a degree, one (2%) obtained an associate's degree, two (3%) obtained a college degree, two (3%) obtained a master's degree, one (2%) obtained a doctoral level degree, and one (2%) was currently attending college or GED school. In terms of educational attainment for the participants' fathers, 23 (40%) did not finish high school, 19 (33%) graduated high school or obtained a GED, two (3%) obtained a training certificate, nine (16%) pursued some college, but did not earn a degree, one (2%) obtained an associate's degree, one (2%) obtained a college degree, and one (2%) was currently attending college or GED school. Of note, there was educational data missing for one mother and three fathers.

Procedures

Each participant was required to provide both a parental consent and a child assent in order to participate in the study. The students completed the baseline and daily diary measures over eight consecutive days and the questionnaires were administered by trained research staff. On the first day of the study, May 8th, 2013, all students (100% participation rate) completed the baseline measures, which assessed demographic characteristics and cultural factors (familism and ethnic identity). Over the next seven days, participants completed the daily diary measures on daily stress (economic stress and family stress) and daily negative mood and the data collection ended on May 15th, 2013. The research assistants visited the school on the same time every day and participants completed the measures over the weekend at home. The participation rates for the daily diary measures ranged from 85% to 98% across the week due to both absences and failure to return weekend diaries. Each participant was compensated for their participation in the study; they were given a \$15 Target gift card for the completion of the baseline measures and a \$5 Target gift card for every daily diary they completed.

Measures

Demographic information. The students reported on demographic information, including gender, age, parent (s) the child lives with, mother and father educational attainment, mother and father employment information, country of origin for the child and the parents, race/ethnicity of the child and the parents, child language use (Norris, Ford, & Bova, 1996), and family immigration stress (Cervantes, Fisher, Córdova Jr., & Napper, 2012).

Familism. Familism was assessed using the Familism Scale (Gil, Wagner, & Vega, 2000) and included seven items that ask participants to rate the degree to which each statement describes their family. Participants were asked to rate this on a scale from 1 (Not at all true) to 5 (Very much true) and an example sample item is, “Family members feel loyal to the family.” The Cronbach’s alphas for this measure in the present sample were .87. This measure has been validated in a large national sample of Latinos adults and yielded a Cronbach’s alpha of .82 (Villarreal, Blozis, & Widaman, 2005).

Ethnic identity. Ethnic identity was assessed using the Multigroup Ethnic Identity Measure (MEIM; Roberts et. al., 1999), which measures how much the participant identified with their ethnicity using twelve items. For the purpose of the current study, the measure evaluates the commitment and exploration components of ethnic identity and asks the participant to rate how much they agree or disagree with the statement on a scale from 1 (Strongly disagree) to 4 (Strongly agree). A specific item on the commitment subscale is, “I feel good about my cultural or ethnic background” and an example of an exploration item is, “I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.” Cronbach’s alphas for this measure in the present sample were .87 for the commitment subscale and .68 for the exploration subscale. This measure was developed and validated with a diverse group of adolescents including Mexican American adolescents and yielded a Cronbach’s alpha of .82 and .58 for the commitment and exploration subscale, respectively, among this ethnic group (Roberts et. al., 1999).

Daily stress. Daily economic stress and family stress were assessed using the Daily Stress Checklist from the Multicultural Events Schedule for Adolescents (MESA; Gonzales, et. al., 1995; Gonzales, Tein, Sandler, & Friedman, 2001). This 37 item daily checklist taps into daily stresses including economic stress, family stress, peer stress, and academic stress and asks the participant to check whether a stressful event occurred, how stressful it was on a scale from 1 (Not at all) to 4 (A lot), and write in a brief description of the actual event. The current study used a reduced version of the MESA as the original version comprised of 81 items was deemed too burdensome for participants to complete every day. Therefore, the researchers decided to reduce the number the items the participants were to complete on the MESA. Economic stress originally had ten items, family conflict originally had nine items, and family trouble originally had sixteen items. When reducing the MESA, a group of researchers that included experts on poverty-related stress identified items thought to be most relevant across economic stress and family stress. Because the reduced items may not capture every potential economic or family stressor, researchers also included an open-ended prompt where participants could indicate a stressor not listed that occurred in these domains (“A stressful event related to finances, family, or discrimination not mentioned here happened to you”). In the reduced version of the MESA, five items were used to calculate economic stress and an example of this item is, “You could not buy yourself something important because your family could not afford it.” Family stress consisted of six items and included family trouble, change, and conflict. An example item is, “Members of your family (including you) hit or hurt each other or had a serious disagreement or fight.” Cronbach’s alphas for this

measure in the present sample were not calculated because reliability analyses require that each participant answers the same items. For example, each participant indicated whether or not they encountered the stressor and if so, endorsed a stressfulness rating for that stressor. Participants did not necessarily provide stressfulness ratings across the same items and hence, Cronbach's alpha would not be an adequate measure of reliability. The MESA was utilized in a past study with ethnically diverse adolescents and included a majority Mexican American sample (Gonzales et. al., 2001).

Mood. Negative daily mood was assessed by the Positive and Negative Affect Schedule for Children (PANAS-C; Laurent, Catanzaro, Joiner, Rudolph, Potter, Lambert, Osborne, & Gathright, 1999). This measure asks the participant to, "Circle the number that best describes how often you have felt each of the following emotions during the past 24 hours" on a scale from 1 (Very slightly or not at all) to 5 (Extremely). THE PANAS-C contains two subscales (positive and negative affect). For the purpose of this study, the negative affect scale was used which is comprised of 15 items and examples of negative affect include "Sad" and "Gloomy." Cronbach's alphas for this measure in the present sample ranged from .83-.90 across the week. One study validated the PANAS in an ethnically diverse sample, majority Latino sample, and found that there was a two factor structure (of negative affect and positive affect) when one item was removed (Brondolo, Brady, Thompson, Tobin, Cassells, Sweeney, McFarlane, & Contrada, 2008). In terms of the PANAS-C, this measure was validated using a mostly Caucasian adolescent population with a Cronbach's alpha of .94 (Laurent et. al., 1999), though it has been used with Latino and African-American samples as well (Brondolo et. al., 2008).

Analytic Strategy

Preliminary analyses. Preliminary analyses included examining descriptive statistics and correlations as well as checking data for skewness, kurtosis, or extreme outliers. Additionally, demographic variables such as gender, age, parent educational attainment, child and parent country of origin, family immigration stress, and child language use were explored in order to determine if they were related to the primary variables included in this study and whether they needed to be controlled for in the present analyses. The variable of family immigration status was used as a proxy for documentation status and captures the stresses that may be experienced by immigrant families including questions such as, “Family afraid of getting caught by immigration officials” and “Family had problems with immigration papers.” To protect the privacy of the participants, documentation status was not asked more explicitly.

Primary analyses. Hierarchical linear modeling (HLM) was utilized as the primary method of analysis due to the nested nature of the data. The data encompasses seven daily ratings of mood as well as risk factors (economic stress and family stress) nested within each participant. Due to this nested data and corresponding non-independence between repeated measurements, ordinary regression methods were not appropriate. In addition to managing nested data, utilizing HLM to examine fixed effects capitalizes on repeated measurements, resulting in increased degrees of freedom and augmented power.

Aim 1, hypotheses 1a & 1b. To examine the impact that economic stress and family stress had on ratings of daily mood, an HLM encompassed economic stress and

family stress as Level 1 independent variables (7 daily ratings for each participant) and mood was the outcome (7 daily ratings for each participant). The equations for this HLM analysis were as follows:

$$\text{Level 1: (Mood)}_{ti} = \pi_{0i} + \pi_{1i} (\text{Economic stress})_{ti} + \pi_{2i} (\text{Family stress})_{ti} + e_{ti}$$

$$\text{Level 2: } \pi_{0i} = \beta_{00} + r_{0i}$$

$$\pi_{1i} = \beta_{10}$$

$$\pi_{2i} = \beta_{20}$$

Aim 2, hypotheses 2a & 2b. To examine the impact that familism and ethnic identity (more specifically, the commitment and exploration components) had on ratings of daily mood, these baseline factors were entered as independent variables at level 2, with daily mood as the outcome at level 1. The equations for this HLM analysis were as follows:

$$\text{Level 1: (Mood)}_{ti} = \pi_{0i} + e_{ti}$$

$$\text{Level 2: } \pi_{0i} = \beta_{00} + \beta_{01}(\text{Familism})_i + \beta_{02}(\text{Commitment})_i + \beta_{03}(\text{Exploration})_i + r_{0i}$$

Aim 3, hypotheses 3a-3d. To examine whether familism and the commitment and exploration subscales of ethnic identity buffered the impact of economic stress and family stress on daily ratings of mood, the above HLM equations were combined to create the following comprehensive HLM equation that tests both main and interactive effects:

$$\text{Level 1: (Mood)}_{ti} = \pi_{0i} + \pi_{1i}(\text{Economic stress})_{ti} + \pi_{2i}(\text{Family stress})_{ti} + e_{ti}$$

$$\text{Level 2: } \pi_{0i} = \beta_{00} + \beta_{01}(\text{Familism})_i + \beta_{02}(\text{Commitment})_i + \beta_{03}(\text{Exploration})_i + r_{0i}$$

$$\pi_{1i} = \beta_{10} + \beta_{11}(\text{Familism})_i + \beta_{12}(\text{Commitment})_i + \beta_{13}(\text{Exploration})_i$$

$$\pi_{2i} = \beta_{20} + \beta_{21}(\text{Familism})_i + \beta_{22}(\text{Commitment})_i + \beta_{23}(\text{Exploration})_i$$

Additional Analyses

Alternative analyses. The primary models examined the impact of commitment and exploration (both components of ethnic identity) on daily mood. Additional analyses were conducted to see if results were consistent with overall ethnic identity in the model. To examine the impact that overall ethnic identity (encompassing the combined components of commitment and exploration) had on ratings of daily mood, a HLM was created in where economic stress and family stress were entered as the Level 1 independent variables (7 daily ratings for each participant) and familism and overall ethnic identity were entered as independent variables at level 2, with daily mood (7 daily ratings for each participant) as the outcome at level 1. Therefore, to examine whether familism and overall ethnic identity buffered the impact of economic stress and family stress on daily ratings of mood, the following additional HLM equation that tests both main and interactive effects was created:

$$\text{Level 1: } (\text{Mood})_{ti} = \pi_{0i} + \pi_{1i}(\text{Economic stress})_{ti} + \pi_{2i}(\text{Family stress})_{ti} + e_{ti}$$

$$\text{Level 2: } \pi_{0i} = \beta_{00} + \beta_{01}(\text{Familism})_i + \beta_{02}(\text{Ethnic identity})_i + r_{0i}$$

$$\pi_{1i} = \beta_{10} + \beta_{11}(\text{Familism})_i + \beta_{12}(\text{Ethnic identity})_i$$

$$\pi_{2i} = \beta_{20} + \beta_{21}(\text{Familism})_i + \beta_{22}(\text{Ethnic identity})_i$$

Exploratory analyses. All previous analyses utilized HLM to investigate the impact of risk and resilience factors on daily ratings of mood across the week. In order to examine whether these risk (economic stress and family stress) and resilience factors (familism, commitment, and exploration) impacted *variability* in daily negative mood

among youth across the span of the week, these variables were entered in a regression equation with variability in daily negative mood as the outcome. The standard deviation of daily mood across the week was calculated for each participant and used as the outcome variable. The weekly mean of economic stress and family stress were utilized to allow for analyses using (OLS) multiple regression. Both the main effects and interactive effects of these variables on variability in daily negative mood were explored by entering economic stress, family stress, familism, commitment, and exploration in step one of the regression equation and entering the interaction in the second step. Finally, post hoc probing was conducted with each significant interaction by conducting a test of simple slopes at high and low levels of each buffering variable.

CHAPTER FOUR

RESULTS

Preliminary Analyses

All independent and dependent variables were tested for skewness. Results indicated that familism, ethnic identity, exploration, commitment, and daily mood were not highly skewed. Specifically, baseline values of familism, ethnic identity, exploration, and commitment ranged from -.51 to -.37 while skewness for daily mood ranged from 1.30 to 2.07 across the week. Thus, it was not necessary to transform these variables in order to conduct analyses. However, daily family stress and daily economic stress did reveal skewness as daily values ranged from 2.19 to 4.81 and 1.69 to 5.04, respectively. Hence, an inverse transformation was performed on these variables. After transformation, the skewness values for daily family stress and daily economic stress ranged from -1.21 to -3.44 and -1.37 to -2.63, respectively. Though transformation greatly improved skewness, the family stress values on Day 7 remained slightly skewed and hence, constitute a limitation.

All variables were also tested for kurtosis. Results revealed that familism, ethnic identity, exploration, commitment, and daily mood were not highly platykurtic or leptokurtic. The values for the baseline variables of familism, ethnic identity, exploration, and commitment ranged from -.65 to -.19 and the value for daily mood ranged from 1.79 to 5.43. However, daily family stress and daily economic stress values were kurtotic as

daily values ranged from 4.99 to 27.27 and 1.27 to 29.77. An inverse transformation was performed on these variables and after transformation, the kurtosis values for daily family stress and daily economic stress across the week ranged from .51 to 11.19 and .63 to 6.28, respectively. Though transformation greatly improved kurtosis, the family stress values on Day 7 remained slightly kurtotic, and therefore, constitute a limitation.

Descriptive statistics and correlations are presented in Table 1. Preliminary analyses also included correlations and *t*-tests between primary variables and demographic variables to determine if demographic variables should be included as covariates in the hierarchical linear models. Gender, age, mother educational attainment, father educational attainment, country where the child was born, parents the child lives with, mother and father country of origin, language use, and family immigration stress were examined. Analyses revealed that daily mood differed based on the gender of the participant. Specifically, females ($M = 29.8$) had worse daily mood when compared to males ($M = 23.02$), $t(1,56) = -2.56$, $p = .02$. Given that gender was related to the dependent variable of interest (daily mood), all primary analyses and models were repeated with gender as a covariate. Results varied slightly when gender was included in the model and therefore, both models are presented in the subsequent results.

Table 1. Descriptive Statistics and Correlations among Demographic and Study Variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.
1. Gender ^a	–	-.23	.05	.10	.16	.03	.32*	.13
2. Familism ^a		–	.33*	-.02	-.15	-.15	-.24	-.14
3. Ethnic Identity Commitment ^a			–	.42**	.05	.11	.25	.03
4. Ethnic Identity Exploration ^a				–	.18	.20	.12	-.12
5. Daily Economic Stress ^b					–	.40**	.41**	-.01
6. Daily Family Stress ^b						–	.63***	.33*
7. Daily Negative Mood ^b							–	.50***
8. Variability in Daily Negative Mood								–
<i>M</i> (<i>SD</i>)	–	3.69 (.88)	3.80 (.76)	3.04 (.78)	-.18 (.02)	-.16 (.01)	26.19 (10.56)	6.18 (5.29)
Actual Range	–	1.29-5.00	1.71-5.00	1.20-4.40	-.20-(-.09)	-.17-(-.11)	15.00-70.00	0.00-27.75

Note. ^aBaseline measure. ^bAverage of 7 daily ratings. * $p < .05$, ** $p < .01$, *** $p < .001$.

Analyses further revealed that ethnic identity exploration was significantly associated with family immigration stress, $r(58) = .31$, $p = .02$ and differed based on father country of origin. Specifically, participants whose fathers were born in the U.S. ($M = 2.73$) had lower ratings of exploration when compared to those whose fathers were born in Mexico ($M = 3.22$), $t(1,55) = -2.43$, $p = .02$. Familism also differed based on number of parents the child lives with; specifically, participants who lived with one parent ($M = 3.20$) had lower ratings of familism when compared to those who lived with two parents ($M = 3.90$), $t(1,56) = -2.92$, $p < .01$. Finally, ratings of economic stress across the week were significantly related to the participant's language use, $r(58) = .26$, $p = .048$. Hence, analyses were repeated including these demographic variables to determine whether the models varied. The results were highly similar and any discrepancies from the original models are noted below (see Models with Additional Control Variables section).

Hierarchical Linear Risk Models (Hypothesis 1a & 1b)

In order to examine the impact of economic stress and family stress as contributing factors in low-income Latino adolescents' ratings of daily mood, a HLM was created in which economic stress and family stress were the Level 1 independent variables (7 daily ratings for each participant) and daily mood was the Level 1 dependent variable (7 daily ratings for each participant). Contrary to hypotheses, the HLM revealed no significant main effect of economic stress on daily mood ($p = .25$; see Table 2). The HLM revealed a significant main effect of family stress such that higher family stress was associated with worse daily mood ($p < .01$; See Table 2). When gender was included as a covariate (Level 2), the results were consistent, with no significant main effect of economic stress on daily mood ($p = .27$) while revealing a significant main effect of family stress on daily mood ($p < .01$; See Table 2).

Table 2. Hierarchical Linear Risk Models: Coefficients and Statistical Tests

	Negative Mood			Negative Mood (controlled for gender)		
	Coefficient (SE)	df	<i>t</i> -ratio	Coefficient (SE)	df	<i>t</i> -ratio
Intercept	26.15 (1.29)	57	20.21**	16.44 (3.81)	56	4.32**
Gender	-	-	-	6.62 (2.46)	56	2.69**
Daily family stress	82.66 (25.20)	307	3.28**	84.68 (25.15)	307	3.37**
Daily economic stress	20.74 (17.92)	307	1.16 <i>ns</i>	19.91 (17.88)	307	1.11 <i>ns</i>

Note. ** $p < .01$. * $p < .05$. + $p < .10$. *ns* = not significant. Main effects reported in the top portion of the table reflect models that did not simultaneously test interactive effects. Interactive effects were tested controlling for all main effects.

Hierarchical Linear Resilience Models (Hypothesis 2a & 2b)

In order to examine the impact that familism and the components of ethnic identity (commitment and exploration) had on ratings of daily mood, a HLM was created in which commitment and exploration were the baseline Level 2 independent variables and daily mood was the Level 1 dependent variable (7 daily ratings for each participant). As hypothesized, the HLM revealed a significant main effect of familism such that more familism predicted better daily mood ($p < .01$; See Table 3). Additionally, the HLM revealed a significant main effect of commitment such that more commitment predicted worse daily mood ($p = .01$; See Table 3). However, contrary to hypotheses, the HLM revealed no significant main effect of exploration on daily mood ($p = .75$; See Table 3). When gender was included as a covariate (Level 2), the results were consistent, with a significant main effect of familism ($p = .03$) and commitment on daily mood ($p = .02$) and no significant main effect of exploration on daily mood ($p = .69$; See Table 3).

Table 3. Hierarchical Linear Resilience with Commitment and Exploration Models: Coefficients and Statistical Tests

	Negative Mood			Negative Mood (controlled for gender)		
	Coefficient (SE)	df	<i>t</i> -ratio	Coefficient (SE)	df	<i>t</i> -ratio
Intercept	26.16 (1.28)	54	20.39**	18.77 (4.02)	53	4.67**
Gender	-	-	-	5.04 (2.61)	53	1.93+
Familism	-4.38 (1.58)	54	-2.77**	-3.60 (1.59)	53	-2.26*
Exploration	-.60 (1.84)	54	-.33 <i>ns</i>	-.73 (1.79)	53	-.41 <i>ns</i>
Commitment	5.36(2.00)	54	2.68*	4.93 (1.96)	53	2.51*

Note. ** $p < .01$. * $p < .05$. + $p < .10$. *ns* = not significant. Main effects reported in the top portion of the table reflect models that did not simultaneously test interactive effects. Interactive effects were tested controlling for all main effects.

Hierarchical Linear Combined Models (Hypothesis 3a - 3d)

In order to examine whether familism and the separate components of ethnic identity (commitment and exploration) buffered the impact of economic stress and family stress on ratings of daily mood, a HLM was created in where familism, commitment, and exploration were the baseline Level 2 independent variables, economic stress and family stress were the Level 1 independent variables (7 daily ratings for each participant), and daily mood was the Level 1 dependent variable (7 daily ratings for each participant). The HLM yielded no significant main effect of economic stress on daily mood ($p = .43$; See Table 4). However, a significant main effect of family stress on daily mood was found such that more family stress was associated with worse daily mood ($p < .01$; See Table 4). In this model, the HLM revealed a significant main effect of familism, such that more familism predicted better daily mood ($p < .01$; See Table 4). Additionally, there was a main effect of commitment on daily mood such that more commitment predicted worse daily mood ($p < .01$), but no significant main effect of exploration on daily mood was found ($p = .55$; See Table 4).

When investigating the interactive effects, no significant economic stress X familism ($p = .90$) or economic stress X commitment ($p = .30$; See Table 4) effects were found. However, a significant interaction effect emerged for economic stress X exploration, such that higher exploration was associated with worse daily mood when economic stress was high ($p = .04$; See Table 4; See Figure 6). No significant family stress X familism ($p = .40$), family stress X exploration ($p = .12$), or family stress X commitment ($p = .48$; See Table 4) interactions were found.

Table 4. Hierarchical Linear Combined with Commitment and Exploration Models: Coefficients and Statistical Tests

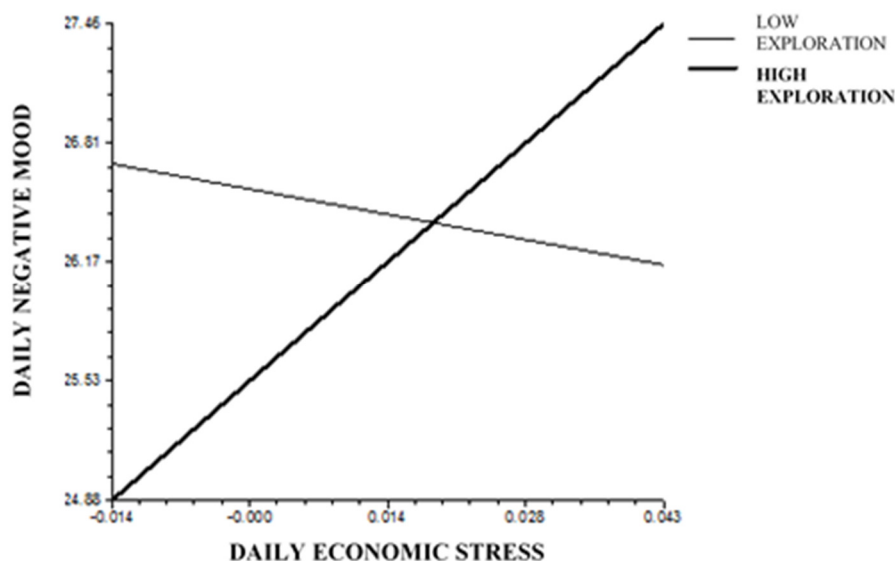
	Negative Mood			Negative Mood (controlled for gender)		
	Coefficient (SE)	df	t-ratio	Coefficient (SE)	df	t-ratio
Intercept	26.10 (1.19)	54	21.96**	19.25 (3.73)	53	5.17**
Gender	-	-	-	4.67 (2.41)	53	1.93+
Familism	-4.09 (1.48)	54	-2.77**	-3.36 (1.49)	53	-2.26*
Exploration	-1.01 (1.70)	54	-.60 <i>ns</i>	-1.13 (1.66)	53	-.68 <i>ns</i>
Commitment	5.17 (1.86)	54	2.78**	4.77 (1.83)	53	2.61*
Daily family stress	105.90 (26.48)	301	4.00**	106.52 (26.46)	301	4.03**
Daily economic stress	14.72 (18.41)	301	.80 <i>ns</i>	14.02 (18.39)	301	.76 <i>ns</i>
Daily family stress X familism	21.10 (24.98)	301	.85 <i>ns</i>	20.27 (24.96)	301	.81 <i>ns</i>
Daily economic stress X familism	2.50 (19.66)	301	.13 <i>ns</i>	2.53 (19.60)	301	.13 <i>ns</i>
Daily family stress X exploration	-57.86 (37.10)	301	-1.56 <i>ns</i>	-53.51 (37.15)	301	-1.44 <i>ns</i>
Daily economic stress X exploration	54.56 (26.70)	301	2.04*	55.39 (26.66)	301	2.08*
Daily family stress X commitment	-28.91 (40.80)	301	-.71 <i>ns</i>	-29.91 (40.76)	301	-.73 <i>ns</i>
Daily economic stress X commitment	28.63 (27.40)	301	1.05 <i>ns</i>	26.59 (27.38)	301	.97 <i>ns</i>

Note. ** $p < .01$. * $p < .05$. + $p < .10$. *ns* = not significant. Main effects reported in the top portion of the table reflect models that did not simultaneously test interactive effects. Interactive effects were tested controlling for all main effects.

When including gender as a covariate in the model, the results were consistent. Specifically, there was a main effect of family stress on daily mood, such that higher family stress was associated with worse daily mood ($p < .01$; See Table 4). Moreover, the same main effects of familism and commitment emerged such that higher familism predicted better daily mood ($p = .03$) while higher commitment predicted worse daily

mood ($p = .01$; See Table 4). Regarding the interactive effects, there was a significant interaction between economic stress X exploration, such that higher exploration was associated with worse daily mood when economic stress was high ($p = .04$; See Table 4).

Figure 6. Interaction between Exploration and Daily Economic Stress on Daily Negative Mood



Models with Additional Control Variables

In addition to the main models with and without gender as a covariate, hierarchical linear models were repeated controlling for variables identified in preliminary analyses as significantly associated with the primary independent variables. When these models were conducted controlling for the covariates of number of parents the child lives with, father country of origin, family immigration stress, and language use, the results were highly similar and remained significant. The exceptions are noted in this section. In the overall models (hypotheses 3a – 3d), when gender was entered as a covariate along with number of parents the child lives with, familism became marginally

significant ($p = .05$ from $p = .03$). When looking at the model including the components of ethnic identity and father country of origin as a covariate (hypotheses 3a- 3d), exploration had a marginally significant interaction with economic stress with and without gender as an additional covariate ($p = .05$ from $p = .04$). When controlling for family immigration stress, the economic stress X exploration interaction became marginally significant with and without gender in the model ($p = .05$ from $p = .04$). When looking at the models that included the components of ethnic identity and language use as a covariate, the economic stress X exploration interaction became marginally significant ($p = .05$ from $p = .04$). These slight changes in p-values are likely due to the increased number of parameters being estimated and associated decrease in power.

Additional Analyses

Alternative analyses. The primary models were re-run with combined ethnic identity in order to examine whether familism and ethnic identity buffered the impact of economic stress and family stress on ratings of daily mood. An HLM was created in which familism and ethnic identity were the baseline Level 2 independent variables, economic stress and family stress were the Level 1 independent variables (7 daily ratings for each participant), and daily mood was the Level 1 dependent variable (7 daily ratings for each participant). A significant main effect of family stress was found such that higher family stress was associated with worse daily mood ($p < .01$; See Table 5). In terms of familism and ethnic identity, the HLM revealed a significant main effect of both familism and ethnic identity on daily mood. Specifically, more familism predicted better

daily mood ($p = .03$) while more ethnic identity predicted worse daily mood ($p = .04$; See Table 5).

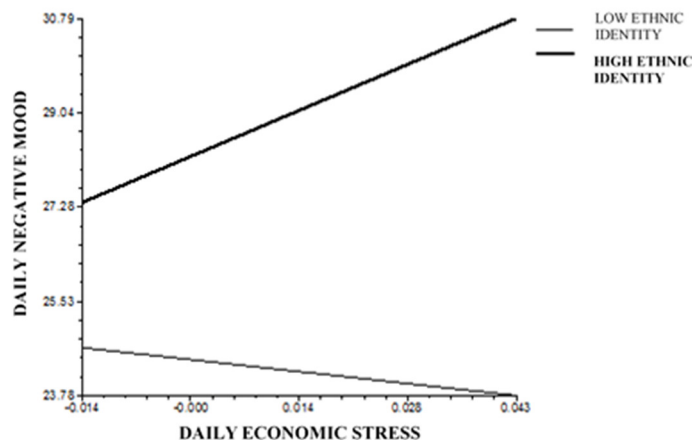
When investigating the buffering impact of ethnic identity, the HLM revealed a significant interaction of economic stress X ethnic identity such that more ethnic identity was associated with worse daily mood in the face of high economic stress ($p < .01$; See Table 5; See Figure 7). A marginally significant interaction effect emerged for family stress X ethnic identity, such that higher ethnic identity was associated with better daily mood when family stress was high ($p = .06$; See Table 5).

Table 5. Alternative Analyses Hierarchical Linear Combined Ethnic Identity Models: Coefficients and Statistical Tests

	Negative Mood			Negative Mood (controlled for gender)		
	Coefficient (SE)	df	t-ratio	Coefficient (SE)	df	t-ratio
Intercept	26.11 (1.21)	55	21.57**	19.05 (3.78)	54	5.04**
Gender	-	-	-	4.81 (2.45)	54	1.97+
Familism	-3.28 (1.43)	55	-2.29*	-2.55 (1.44)	54	-1.77+
Ethnic identity	4.14 (1.92)	55	2.16*	3.61 (1.89)	54	1.91+
Daily family stress	99.92 (26.16)	303	3.82**	100.75 (26.14)	303	3.85**
Daily economic stress	17.61 (17.98)	303	.98 ns	17.03 (17.96)	303	.95 ns
Daily family stress X familism	16.17 (24.76)	303	.65 ns	15.56 (24.74)	303	.63 ns
Daily economic stress X familism	.13 (19.40)	303	.01 ns	-.19 (19.34)	303	.01 ns
Daily family stress X ethnic identity	-86.57 (45.73)	303	-1.89+	-83.38 (45.70)	303	-1.82+
Daily economic stress X ethnic identity	82.34 (27.35)	303	3.01**	80.96 (27.32)	303	2.96**

Note. ** $p < .01$. * $p < .05$. + $p < .10$. ns = not significant. Main effects reported in the top portion of the table reflect models that did not simultaneously test interactive effects. Interactive effects were tested controlling for all main effects.

Figure 7. Interaction between Ethnic Identity and Daily Economic Stress on Daily Negative Mood



When gender was included as a covariate in this model, the results were consistent. There was a main effect of family stress on daily mood, such that higher family stress was associated with worse daily mood ($p < .01$; See Table 5). Furthermore, a marginally significant effect of both familism and ethnic identity emerged such that higher familism predicted better daily mood ($p = .08$) while higher ethnic identity predicted worse daily mood ($p = .06$; See Table 5). In terms of the interactive effects, there was a significant interaction between economic stress X ethnic identity, such that more ethnic identity was associated with worse daily mood in the face of high economic stress ($p < .01$; See Table 5), and a marginally significant interaction between family stress X ethnic identity. Specifically, the HLM revealed that higher ethnic identity was associated with better daily mood when family stress was high ($p = .07$; See Table 5).

Exploratory analyses. In order to examine whether risk and resilience factors impacted variability in daily negative mood, multiple regression was conducted where economic stress, family stress, familism, commitment, and exploration were entered in

the first step of the model and interaction terms among these variables were entered in the second step (tested sequentially). Family stress emerged as the only significant main effect of variability in daily negative mood both when gender was included ($\beta = .411, p < .01$) and not included ($\beta = .401, p < .01$; See Table 6) in the model.

When examining the interactive effects, there was a significant family stress X ethnic identity commitment ($\beta = -.315, p = .02$) and family stress X ethnic identity exploration ($\beta = .490, p < .01$; See Table 6) interaction. The results were consistent when gender was included for the family stress X commitment ($\beta = -.317, p < .05$) and family stress X exploration interaction ($\beta = -.494, p < .01$; See Table 6). Post hoc probing of these analyses revealed that there was a significant relationship at low levels of commitment, such that high family stress was associated with higher levels of variability in daily negative mood at low levels of commitment, but not at high levels ($\beta = .818, p < .01$; See Table 7; See Figure 8). These results were also consistent when gender was included in the model ($\beta = .833, p < .01$). Furthermore, post hoc probing of the family stress X exploration interaction revealed that there was a significant relationship at low levels of exploration, such that high family stress was associated with higher levels of variability in daily negative mood at low levels of exploration, but not at high levels ($\beta = 1.188, p < .01$; See Table 7; See Figure 9). These results were also consistent when gender was included in the model ($\beta = 1.194, p < .01$).

Table 6. Exploratory Variability in Daily Mood Regression Analyses: Coefficients and Statistical Tests

	Variability in Daily Negative Mood			Variability in Daily Negative Mood (controlled for gender)		
	B (SE)	β	<i>t</i>	B (SE)	β	<i>t</i>
Constant	6.18(.65)	-	9.45**	4.13(2.12)	-	1.95+
Gender	-	-	-	1.40(1.37)	.13	1.02 <i>ns</i>
Familism	-.95(.82)	-.16	-1.15 <i>ns</i>	-.74(.85)	-.12	-.87 <i>ns</i>
Exploration	-1.58(.96)	-.23	-1.65 <i>ns</i>	-1.60(.96)	-.24	-1.68 <i>ns</i>
Commitment	.97(1.03)	.14	.95 <i>ns</i>	.85(1.03)	.12	.83 <i>ns</i>
Daily family stress	149.41(51.74)	.40	2.89**	153.41(51.87)	.41	2.96**
Daily economic stress	-37.57(32.17)	-.16	-1.17 <i>ns</i>	-41.95(32.45)	-.18	-1.29 <i>ns</i>
Daily family stress X familism	-82.25(54.47)	-.23	-1.51 <i>ns</i>	-86.66(54.45)	-.24	-1.59 <i>ns</i>
Daily economic stress X familism	28.94(29.30)	.14	.99 <i>ns</i>	28.61(29.30)	.14	.98 <i>ns</i>
Daily family stress X exploration	-296.73(74.32)	-.49	-3.99**	-299.38(79.06)	-.49	-3.79**
Daily economic stress X exploration	-70.13(44.81)	-.23	-1.57 <i>ns</i>	-69.13(44.82)	-.22	-1.54 <i>ns</i>
Daily family stress X commitment	-171.59(73.59)	-.32	-2.33*	-173.15(73.44)	-.32	-2.36*
Daily economic stress X commitment	-45.59(46.41)	-.14	-.98 <i>ns</i>	-50.53(46.51)	-.16	-1.09 <i>ns</i>

Note. ** $p < .01$. * $p < .05$. + $p < .10$. *ns* = not significant. Main effects reported in the top portion of the table reflect models that did not simultaneously test interactive effects. Interactive effects were tested controlling for all main effects.

Table 7. Exploratory Variability in Daily Mood Regression Probing Analyses: Coefficients and Statistical Tests

	Variability in Daily Negative Mood			Variability in Daily Negative Mood (controlled for gender)		
	B (SE)	β	<i>t</i>	B (SE)	β	<i>t</i>
Daily family stress X high commitment	43.44(67.32)	.12	.65 <i>ns</i>	46.65(67.23)	.13	.69 <i>ns</i>
Daily family stress X low commitment	305.11(83.22)	.82	3.67**	310.70(83.19)	.83	3.74**
Daily family stress X high exploration	-21.77(62.59)	-.06	-.35 <i>ns</i>	-23.69(65.73)	-.06	-.36 <i>ns</i>
Daily family stress X low exploration	443.02(86.53)	1.19	5.12**	445.25(89.85)	1.19	4.96**

Note. ** $p < .01$. * $p < .05$. + $p < .10$. *ns* = not significant.

Figure 8. Interaction between Ethnic Identity Commitment and Daily Family Stress on Variability in Daily Negative Mood

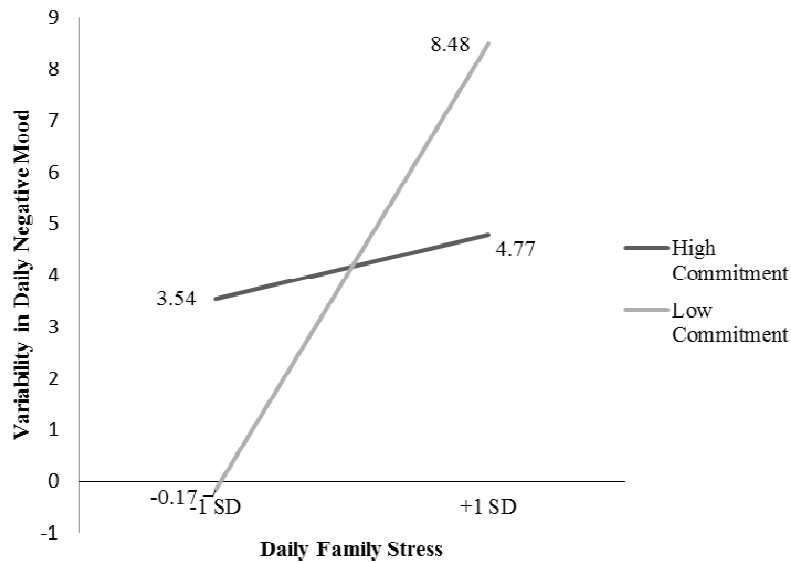
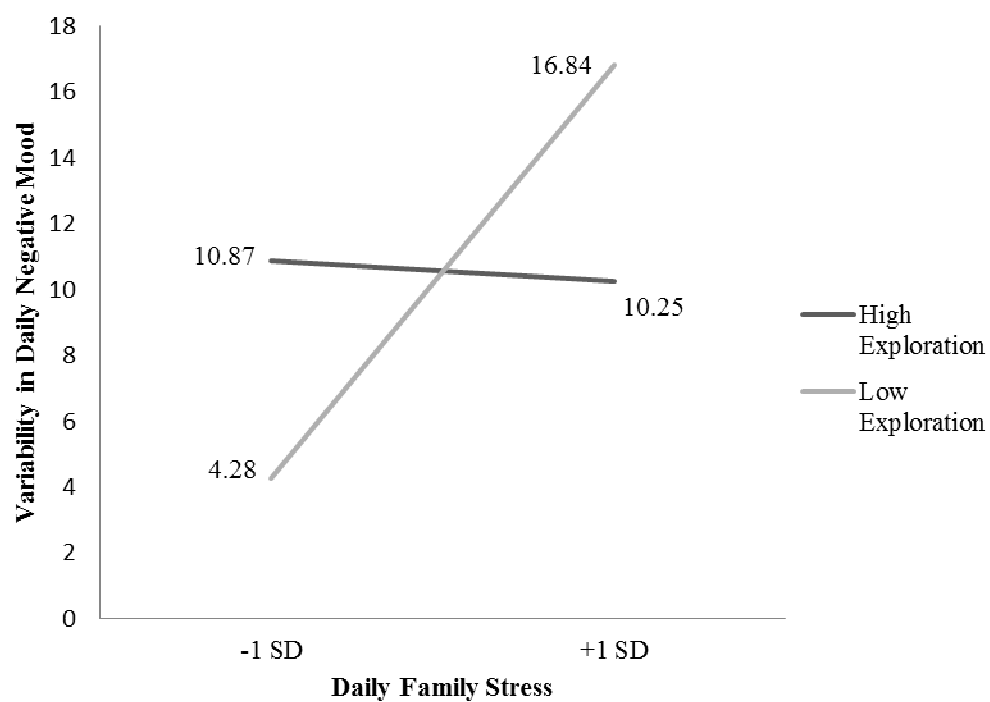


Figure 9. Interaction between Ethnic Identity Exploration and Daily Family Stress on Variability in Daily Negative Mood



CHAPTER FIVE

DISCUSSION

This research study employed innovative daily diary methodology to assess the impact of various risk and resilience factors on daily mood, a construct strongly linked to internalizing outcomes and self-esteem (e.g. Lonigan et. al., 1999; Phillips et. al., 2002; Schneiders et. al., 2007). The current study revealed several findings regarding how multifaceted risk and resilience factors impact daily mood among low-income Latino adolescents. Family stress emerged as a risk factor and was linked to worse daily mood. In terms of resilience factors, familism was found to positively impact daily mood. Conversely, higher levels of ethnic identity commitment were related to worse daily mood. Furthermore, when youth endorsed higher levels of ethnic identity exploration in the context of high economic stress, youth experienced worse daily mood.

The Impacts of Economic Stress and Family Stress on Daily Mood: Hypothesis 1a & 1b

Daily family stress was strongly linked to daily mood. More specifically, more family stress was associated with worse daily mood and this finding remained significant when accounting for gender in the model, which may further substantiate this robust finding. The present study adds to the substantial body of literature, which posits the negative impact of family stress on mental health. Family is a key context that a child interacts with on a daily basis (Lawton & Gerdes, 2014) and family stress has also been

identified in past literature as a significant stressor among Mexican American youth (Kobus & Reyes, 2000). Given the centrality of family in the Latino culture, family stress may be particularly damaging for Latino youth. It may be that Latino youth feel culturally obligated to assist or support their family with problems (Fuligni, Tseng, & Lam, 1999) in instances of high family stress, which could contribute to worse daily mood among this sample. Although family conflict and family change and transition have been implicated in internalizing symptoms among youth (e.g. Vargas et. al., 2013; Zeiders et. al., 2011), the current study contributes to the dearth of literature on how daily family stress may impact mood on a daily basis.

In contrast, daily economic stress did not impact adolescents' ratings of daily mood when accounting for family stress in the same model. Past literature has consistently found the negative impact of poverty and economic stress among youth (e.g. Hammack et. al., 2004; Wadsworth et. al., 2008a) including the potential impact of negative mood on children, adolescents, and adults (e.g. Brown & Lynn, 2010; Santiago et. al., 2009). Thus, economic stress may have a detrimental impact on longer term outcomes such as internalizing symptomatology given that it is often stable and chronic in the lives of low-income youth. These youth may be experiencing consistent economic stress, whereas daily family conflicts might be more variable and quicker to impact their daily mood. Previous research has found that low-income children experience more stressful life events and daily hassles (Evans, 2004) and residing in poverty-related stress may exacerbate the impact of family conflict (Santiago & Wadsworth, 2009). Hence,

day-to-day economic stress may accumulate over time to impact long-term mental health, while family stress may have a more proximal negative impact on daily mood.

Another explanation for the finding of economic stress on daily mood stems from research which posits that economic stress can impact mental health outcomes in an indirect way rather than a direct way. A breadth of literature has indicated that poverty takes a toll on the family, which can result in family stress and, in turn, impact adolescents in a negative trajectory (Conger et. al., 1994). Notably, for families residing in poverty, economic stress has been associated with adolescent internalizing and externalizing symptomatology though its association with family conflict (Conger et. al., 1994; Wadsworth & Compas, 2002). Therefore, it may be that economic stress does not directly impact daily mood in adolescents; instead, family stress or styles of parenting could explain the association between economic stress and mental health outcomes. Financial hardship can impact parenting and family dynamics (Gonzales, Cox, Roosa, White, Knight, Zeiders, & Saenz, 2011) and can ultimately, result in negative mental health outcomes. Although family stress was not examined as a mediator in the present study, it would be advantageous for future research to further explicate the relationship between economic stress and mental health.

The Impacts of Familism and Ethnic Identity Commitment and Exploration on Daily Mood: Hypothesis 2a & 2b

With regard to resilience factors, familism emerged as an important resilience factor among the lives of Latino adolescents. Namely, higher levels of familism predicted better daily mood. Past research substantiates this finding as familism has been linked to

positive mental health outcomes including less endorsement of internalizing symptomatology (Reyes & Elias, 2011). Using a daily diary approach, this research further points to the fact that familism is a resilience factor in the context of daily mood, an important finding given that mood has been identified as a precursor to the development of internalizing symptoms (e.g. Lonigan et. al., 2003). Family unity and closeness, components of familism, may provide youth with a support system (Stein et. al., 2013) that youth can rely on in the face of accumulating stress. When youth see themselves as an integral part of a family and are surrounded by emotional support (Zeiders et. al., 2013), their mood may be positively impacted. When gender was included in the model, familism became marginally significant which suggests that there are gender differences in the endorsement of daily mood. For example, previous research has found that females tend to endorse more sad or hopeless mood when compared to males (CC, 2012) and the gender differences in mood found in the study further substantiates this finding.

The current study also examined whether ethnic identity commitment and exploration impacted daily mood among Latino adolescents given that previous research suggests these constructs be explored separately as they may impact mental health differently and have different developmental paths (e.g. Romero & Roberts, 2003; Schwartz et. al., 2014). Higher ethnic identity commitment was associated with worse daily mood, while exploration did not have a main effect on daily mood. Even with gender, these findings remained consistent. Commitment has previously been linked to positive outcomes (Rivas-Drake et. al., 2014), which could be due to positive feelings

about one's ethnic identity or seeing one's ethnicity as a cultural asset (Torres & Ong, 2010). However, previous research has indicated that commitment depends on prominence, centrality, and context in a youth's life (Umaña-Taylor, Quintana, Lee, Cross, Rivas-Drake, Schwartz, Syed, Yip, Seaton, & Ethnic and Racial Identity in the 21st Century Study Group, 2014) and it is possible that having a higher sense of commitment might make youth more sensitive in certain contexts. The role of commitment in differing contexts has been examined. Latino youth with higher levels of ethnic identity may be more aware of more discriminatory interactions (Arbona et. al., 2013) and may perform poorly in school because of the awareness of discrimination towards their group (Umaña-Taylor et. al., 2014). Additionally, research has found that adolescents with higher levels of belonging may associate their ethnic identity with the context they reside in (e.g. poverty) and, in turn, feel stifled (Stein et. al., 2014). Although youth in the current study may feel proud of their ethnicity, context may play a crucial role in how youth view their ethnic identity in a climate that may not value their identity.

An alternative explanation for this finding encompasses the research on the developmental progression of ethnic identity which finds that achievement of ethnic identity occurs when an individual actively explores their identity and subsequently, accepts and assimilates to their ethnic background (Umaña-Taylor et. al., 2014). According to identity research, foreclosure can occur if an individual commits to an identity without the stage of exploration (Phinney, 1990; Umaña-Taylor et. al., 2014). Hence, it may be that youth who prematurely commit to a sense of ethnic identity without active exploration are more likely to experience worse mood. In contrast, exploration was

not found to directly impact daily mood. It is normative for youth to explore their ethnic identity during adolescence (Umaña-Taylor et. al., 2009b; Umaña-Taylor et. al., 2014) and deepen their understanding and awareness of their ethnicity (“Who am I?”) which has been coined an integral developmental process in adolescence (Umaña-Taylor et. al., 2014). Hence, because this process may be fairly common in adolescence, exploration may not be explicitly tied to mood.

The Buffering Effect of Familism and Ethnic Identity Commitment and Exploration on Daily Mood: Hypothesis 3a - 3d

The current study also examined whether familism and ethnic identity commitment and exploration buffered the impact of economic stress and family stress on daily mood. Results indicate that ethnic identity exploration did emerge as moderator, though in an unexpected direction. When adolescents were faced with high levels of economic stress, higher exploration was associated with worse daily mood, suggesting exploration of ethnic identity may exacerbate the effects of economic stress. According to Luthar, Cicchetti, and Becker (2000), this finding may indicate a vulnerable and reactive effect given that higher exploration is a risk factor in the context of increasing daily economic stress. This finding may indicate youth who are actively exploring or learning about their culture may be more vulnerable to the negative effects of poverty.

Adolescents who actively explore may have a more tenuous sense of identity which could be more impacted by economic hardship and therefore, contribute to negative mental health outcomes (Stein et. al., 2014). In the context of discrimination, ethnic identity exploration may make Latinos more susceptible to daily discrimination as they are more

conscious of ethnic insults and discrimination, which can erode one's feelings of acceptance as well as their worldview (Torres & Ong, 2010; Torres, Yznaga, & Moore, 2011). Exploring one's ethnicity may prompt an individual to think about in-group and out-group differences (Greene et. al., 2006; Phinney, 1990) and the awareness of negative images or stereotypes in mainstream society can impact self-esteem (Phinney, 1991). Hence, youth with a heightened sense of exploration may be more aware of the inequality present in their economic situation, similar to the context of discrimination. Interestingly, researchers have suggested that exploration of a discriminatory situation can also exacerbate how long mental health symptoms are present and, in turn, strain the use of adaptive coping strategies or other resources (Torres & Ong, 2010). Hence, ethnic identity exploration may not be helpful in the context of poverty and may intensify negative mood among low-income Latino youth.

Although ethnic identity commitment had a significant main effect on the daily mood of youth, it did not buffer or exacerbate the impact of family stress or economic stress. Endorsing a high sense of pride or positive feelings about one's ethnic identity did not appear to mitigate the effects of either stressor. Likewise, ethnic identity exploration did not buffer the impact of family stress on youth. Again, family stress may have been viewed as a more volatile and day-to-day stressor among these youth and hence, may not have been mitigated even if youth used these components of ethnic identity as cultural tools or mechanisms to cope.

Familism also did not emerge as a buffer in this study. Considering that familism has been extensively shown to be advantageous, it was expected that values such as

closeness and support would shield youth from the effects of economic stress and family stress. Although familism is beneficial to adolescents' mood (i.e., main effect on daily mood), familism may not be able to fully buffer the uncontrollable nature and severity of economic stress (Umaña-Taylor et. al., 2011). Similarly, given that family stress has been identified as a salient stressor in past research (Kobus & Reyes, 2000), it may be that family conflict and family instability jeopardizes family functioning and the family unit and even high levels of familism cannot protect against this risk factor.

The Impact of Overall Ethnic Identity on Daily Mood: Alternative Analyses

While the primary models investigated the impact of commitment and exploration, the current study also examined if these results were consistent with overall ethnic identity in the model. Consistent with ethnic identity commitment findings, the current study found that overall ethnic identity had a significant impact on daily mood such that higher levels of ethnic identity predicted worse daily mood. Furthermore, the economic stress X ethnic identity finding was consistent with previous analyses revealing that exploration may worsen the impact of economic stress hence also possibly indicating a vulnerable and reactive effect (Luthar et. al., 2000). Hence, it may be that ethnic identity makes youth hyper-aware of their ethnicity which could lead to negative outcomes and is also dependent on the larger context a youth resides in such as poverty or discrimination (e.g. Arbona & Jimenez, 2013; Stein et. al., 2014; Umaña-Taylor et. al., 2014).

Conversely, there was a trend for the family stress X ethnic identity interaction which may indicate that high ethnic identity acts as a buffer in high levels of family stress

which was not found when the components were examined separately. There has been research which points to the role of family in harnessing a youth's ethnic identity (Bernal et. al., 1993) and family may be an integral and supportive context for these youth. This buffer may be due to the ethnic and racial socialization of a youth's ethnic identity by their family which, combined with strong family connections, may help these youth to face family stress differently than their counterparts (Williams et. al., 2013). However, solid conclusions cannot be drawn since this finding is not significant, but future research should further investigate this link in the context of daily family stress.

The Impacts of Risk and Resilience Factors on Variability in Daily Mood:

Exploratory Analyses

The exploratory analyses examined the impact of risk and resilience factors on variability in daily negative mood. Variability in mood has been linked to internalizing symptoms such as depression and anxiety (e.g. Gruber, Kogan, Quoidbach & Mauss, 2013; Maciejewski, van Lier, Neumann, Van der Giessen, Branje, Meeus, & Koot, 2014). Research suggests that this inability to regulate their mood states may cause distress and, in turn, lead to internalizing symptomatology (Maciejewski et al., 2014). The present analyses revealed that family stress was linked to higher variability in mood, though ethnic identity commitment and exploration appeared to buffer that association. Both the association between commitment and exploration and daily family stress may look similar to a protective stabilizing effect described by Luthar and colleagues (2000). Despite the increasing risk of family stress, youth with high commitment and exploration, respectively, appeared to report less variability in mood across the week.

Limited research is available on the impact of family stress on mood variability (Maciejewski et. al., 2014). However, one study found that mood variability had an impact on parent-child conflicts, which may point to the importance of regulation of mood and subsequent interactions with others (Maciejewski et. al., 2014). It may be that daily negative interactions with family (e.g. family conflict) impact a youth's ability to regulate their mood and therefore, may help explain the association of daily family stress with heightened mood variability across the span of the week. Moreover, given the association of mood variability and internalizing symptoms (Gruber et. al., 2013; Maciejewski et. al., 2014), this current finding can be further explained by the previous established impact of family stress on internalizing outcomes (e.g. Vargas et. al., 2013; Zeiders et. al., 2011).

Youth who faced high family stress and had lower commitment to their ethnic identity reported more variability in negative mood across the week. Previous research has posited that commitment may be protective (e.g. Rivas-Drake et. al., 2014) and that family may play a key role in socializing their children about their ethnic identity and stimulating a sense of pride in their identity (e.g. Bernal et. al., 1993; Umaña-Taylor, Alfaro, Bámaca, & Guimond, 2009a). Hence, it may be youth low in commitment may not have a concrete sense of belonging and identity (Stein et. al., 2014) and may be more prone to variability in negative mood when facing high levels of daily family stress. Additionally, youth low in exploration experienced higher negative mood variability when they faced high levels of daily family stress across the week. Previous research has found a link with family ethnic socialization (parents actively teaching their children

about their culture; Umaña-Taylor et. al., 2009a) and the exploration component of ethnic identity (Supple et. al., 2006). In the context of high family stress, youth who are not actively exploring their identity or who may not have family members encouraging their sense of exploration, may be more vulnerable to family stress (Williams et. al., 2013) and therefore, endorse more variability in negative mood. In the context of family stress, ethnic identity commitment and exploration appear to be protective as youth with lower levels of this resilience factor are more vulnerable to high levels of family stress.

Summary of Findings

The current study found that family stress has a significant impact on not only daily mood, but also on variability in daily negative mood among low-income Latino adolescents. Hence, family stress may prove to be an important context for intervention as mood has been strongly linked to internalizing outcomes, such as depression and anxiety (e.g. Lonigan et. al., 1999). Furthermore, familism was deemed to be advantageous for youth though it did not fully buffer the effects of economic stress and family stress. Ethnic identity commitment was found to be detrimental for youth and in the face of economic stress, ethnic identity exploration was found to exacerbate the impact of high economic stress. Context appears to play in an important role in how commitment and exploration relate to mood (e.g., Phinney, 1990). The negative impact of commitment on daily mood could also be explained by the developmental progression of ethnic identity (e.g. Umaña-Taylor et. al., 2014). Similarly, like commitment, youth high in exploration may be more aware of the negative implications of their identity in certain contexts, such as poverty, (e.g. Stein et. al., 2014) which can, in turn, lead to worse daily

mood. While ethnic identity was linked to worse mood, exploratory analyses also suggest youth with higher levels of ethnic identity also experience more stable mood. In the context of high family stress, low levels of commitment and exploration were linked to greater variability in negative mood which may suggest that youth who hold less pride or participate in a limited active exploration of their identity may be more strongly impacted by family stress (e.g. Williams et. al., 2013). Overall, higher levels of ethnic identity commitment and exploration was associated with more stable, but worse mood whereas youth low in these components of ethnic identity had higher variability in negative daily mood.

Limitations

Despite the novel findings of the current study, there are several limitations that are important to discuss. First, the results could have been impacted by the small sample size and therefore, may have not had enough power to detect effects. HLM allows for greater power and capacity to detect significant results due to its capitalization on repeated measurements. However, the impact of resilience factors on daily mood could have been limited by the small sample size since these variables were only measured at baseline and hence, did not benefit from repeated measures across the week. Likewise, the exploratory analyses did not utilize repeated measurements and therefore, it may be important to replicate these analyses in a larger sample. Additionally, the variables of economic stress and family stress were originally skewed and kurtotic so an inverse transformation was performed. Even after transformation, values remained skewed and kurtotic for family stress for Day 7 only and therefore, constitute a limitation.

The present research used daily diary methodology to tap into the risk and resilience factors these youth experience and the impact on daily mood. However, the analyses did not include an examination of mediators (e.g. daily family stress as mediator between daily economic stress and daily mood) or time-lagged models to determine causality. For example, it would be advantageous to determine if certain risk factors, such as family stress or economic stress, predicted same-day or next-day mood among these youth. Furthermore, the current study investigated risk, resilience, and mood over a span of one week and it may be that the relationships between these variables differ over a longer time period. Future research should continue to invest in daily diary methodology while assessing youth over several time points in order to tap into the long-term impact of stress on mood. Finally, the current study did not directly examine discrimination, but future research should examine if discrimination impacts adolescents' ethnic identity commitment and exploration in order to tease apart the detrimental association of ethnic identity and daily mood.

Additionally, all variables in the study were assessed via self-report measures, making the study susceptible to reporter bias. Thus, reports of primary variables (such as family stress and economic stress) were not substantiated by reports by different family members. Additionally, there are ways that go beyond "paper and pencil" measures that could enhance the measurement of these constructs. The literature has identified several alternative ways to measure mood including experience-sampling method (ESM) and handheld and electronic collection of mood assessments (Bolger, Davis, & Rafaeli, 2003). Finally, qualitative methodology would enrich the data gathered on the impact of

risk and resilience factors on these youths' lives and may also be able to tease apart the centrality of these stressors or protective factors in the lives of these adolescents. For example, a past research study used community-based participatory research and qualitative methodology to tap into the risk and resilience factors and perceptions of success among low-income Latino youth by examining prevalent themes which emerged (Shetgiri, Kataoka, Ryan, Askew, Chung, & Schuster, 2009).

This research aimed to describe the risk and protective experiences among a low-income Latino adolescent population. However, this may also limit the generalizability of the findings. Future research should continue to examine economic stress, family stress, familism, and ethnic identity in a diverse population with differing ethnicities, ages, and varied socioeconomic statuses.

Implications

Despite the current study's limitations, the findings contribute to expanding the field's knowledge of the life experiences of low-income Latino adolescents and subsequently, harnessing appropriate evidence-based and culturally-sensitive prevention and intervention efforts. Latino youth have been shown to exhibit more negative mood, depression, and anxiety than their non-Hispanic counterparts (Centers for Disease Control and Prevention, 2012; McLaughlin et. al., 2007) and moreover, may be impacted by several risk factors within the cultural-ecological-transactional perspective. Hence, it is important to investigate not only how to prevent or intervene in these contexts, but also how to draw from the resilience factors among this population.

Given that mood is a construct strongly linked to internalizing symptomatology (Lonigan et. al., 1999), it is important to intervene early in order to prevent the development of depression and anxiety. It appears that the context of family is crucial and that poverty-related stress (e.g. economic stress and family stress) may be particularly impactful for Latino adolescents. More specifically, family stress appeared to be the most damaging stressor for youth in the current study and given that family is an important context in a child's life, it may be advantageous to intervene within this context. Intervention efforts targeting families could be undertaken in order to increase adaptive coping while strengthening the family system (Wadsworth, Rindlaub, Hurwich-Reiss, Rienks, Bianco, & Markman, 2013). For example, strategies such as emotional regulation (primary control coping) and cognitive restructuring and positive thinking (secondary control coping) can help families effectively cope with poverty-related stress and ultimately, have a positive ripple effect across all members of the family (Wadsworth, Raviv, Santiago, & Etter, 2011). Secondary control coping for family conflict, a component of family stress, has been found to be helpful for helping adolescents to restructure the way they think about stress within the family or to encourage them to involve themselves in alternative, but positive, activities (Santiago & Wadsworth, 2009). Hence, along with bolstering primary control strategies such as problem solving or emotion regulation, incorporating secondary control coping skills into prevention and intervention programs could help youth cope with family stress and subsequently, have a positive impact on their daily mood and quality of life. Furthermore, on a public policy level, it is crucial for families to get the continued support of programs

aimed to help reduce poverty-related stress (Wadsworth et. al., 2013), which has the potential to positively impact the family system thereby reducing family stress.

Familism also emerged as an important cultural resource for youth as higher familism was associated with better daily mood. However, familism was not able to buffer the impact of economic stress and family stress. Given that familism purports the values of family cohesion and unity, programs should encourage familism as a resource. Moreover, research has recommended that services should integrate the role of familism and also, be attuned to the role of the family among the Latino culture (Gonzales et. al., 2012). Familism has also been posited to promote more adaptive family interactions (e.g. Gonzales et. al., 2012; Taylor et. al., 2012) and hence, may also be crucial in reducing the impact of family stress.

The current study revealed several interesting findings about ethnic identity in the context of daily economic stress and daily family stress. Although these findings may suggest that higher commitment and exploration may be harmful for youth, context appears to play a key role in how Latino youth appreciate and explore their identity and hence, could be driving the negative impact of ethnic identity on daily mood. For example, if these youth are residing in economic stress, they may see their sense of identity threatened by overwhelming poverty-related stress (Stein et. al., 2014) or youth with heightened ethnic identity may be more aware of the structural inequalities or discrimination present in society (e.g. Torres & Ong, 2011). Programs should encourage youth to explore their ethnic identity through culture-specific activities while promoting a healthy sense of ethnic pride/self and empowerment, which may help youth incorporate

ethnic identity as a resource. Along with using ethnic identity as a resource, youth should also be encouraged to harness coping strategies in order to deal with the harmful contexts they may reside in. Moreover, having lower levels of commitment and exploration predicted higher variability in negative mood which further points to the need to continue to encourage youth to actively explore and embrace their ethnicity. Alongside with a promotion of ethnic identity, coping strategies (such as primary and secondary control coping) should be encouraged in order to complement positive ethnic identity development and combat stress.

Further, beyond the individual level, positive ethnic identity development can also be facilitated at the contextual level, such as at the family and community level. Research encourages that both youth and families build on cultural resources including ethnic identity (Gonzales et. al., 2012). Given that families play an important role in fostering a sense of ethnic identity in their children (Umaña-Taylor et. al., 2009a), programs could incorporate both coping and promotion of ethnic identity within families. Moreover, within the school system, beginning research suggests that school counselors could help promote positive racial and ethnic identity development by facilitating the student's exploration of their identity while creating a more inclusive school environment which promotes diversity (Akos & Ellis, 2008). Indeed, past research found that teachers who promoted a diverse classroom environment and embraced cultural differences resulted in students harnessing more positive ethnic identities and also resulted in better academic outcomes (Brown & Chu, 2012). Moreover, ethnic studies, or studies which focuses on facilitating a deepened understanding of the world and of one's history and culture, can

help students fight against oppression and racism (Tintiangco-Cubales, Kohli, Sacramento, Henning, Agarwal-Rangnath, & Sleeter, 2015) and has been posited to increase ethnic identity while improving academic outcomes (Sleeter, 2011). Promoting ethnic identity among youth across multiple contexts is integral and can also contribute to gradually altering the harmful sociopolitical contexts youth may interact with. Youth should be encouraged to continue to explore and feel proud of their identity within a context that appreciates diversity and affirms their identity.

On a multidisciplinary level, it is crucial to continue to pursue research into not only the risk, but also the resilience factors which characterize the expanding Latino population. According to Gonzales (2012), it is important to recognize that Latino youth interact with multisystemic contexts and therefore, prevention and intervention efforts should also span across multiple contexts. Within the cultural-ecological-transactional perspective, future research should continue to explore the risk and resilience factors among the Latino population and engage in efforts to intervene on the individual and family level, community level, and ultimately, on an institutional level. Creating multidisciplinary, multisystemic, and culturally-based prevention and intervention efforts have the potential to promote coping strategies, reduce stressors, enhance well-being, and ultimately, empower youth.

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VITA

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